

DP-308496

CAPACITIVE ANGULAR POSITION SENSOR

ABSTRACT OF THE DISCLOSURE

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A sensor assembly for sensing angular position of one object relative to another object. A capacitor is formed between a transmitter capacitor plate having a pair of transmitter electrodes and a receiver capacitor plate having preferably eight receiver electrodes forming four receiver electrode pairs. A dielectric rotor rotates between the plates, the rotor having first and second segments each subtending 67.5 which are mutually separated by a vacancy subtending 45 degrees, and further having a third segment subtending 45 degrees disposed between the first and second segments diametrically opposite the vacancy. An electrical circuit measures net charge induced on each of the receiver electrode pairs, wherein the charges indicate the angular position of said rotor relative to the transmitter and receiver capacitor plates.